

# Patterns of Output Growth

THIS is the fifth in a series of articles dealing with patterns of growth rates in a large number of individual products and services.<sup>1</sup> Its purpose is to illustrate the wide variation in production trends of both new and established products during the past 15 years. It brings up to date a similar analysis that appeared just 3 years ago, and expands the list of items to almost 375—approximately 70 more than appeared in the previous tabulation. While the expanded list is by no means all inclusive, it represents a broad spectrum of products and industries.

On a weighted basis the coverage of the present list is substantial. The manufacturing and mining products in-

cluded in table A on page 24 account for roughly two-thirds of the total weight of the Federal Reserve Board's index of industrial production. Except for instruments and miscellaneous manufacturing, products from all of the two-digit SIC manufacturing industries are included.

Some important qualifications noted in the earlier articles bear repeating. The list represents only a small fraction of the total number of products in the economy. For the most part it is limited to items for which consistent annual production data, measured in physical units, are readily available from trade and Government sources.<sup>2</sup> Notably lacking from this compilation are those products, like machinery, where output cannot be easily measured on a physical basis unless highly detailed specifications are used. The list also tends to exclude data for very new products because of the lag in the collection of such statistics. Furthermore there is no consistency regarding classification detail among the 374 products: certain products are very narrowly defined, e.g., food disposals; others are given in terms of a broad classification, e.g., finished steel products.

It is important to keep in mind that while a simple count of physical units is very useful for many purposes, production changes may also come about from changes in product mix and in quality. Shifts of the kind that affect average price per physical unit are reflected in changes in the GNP, even when the number of units produced remains constant.

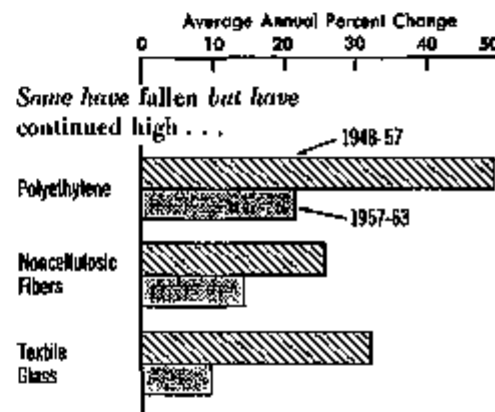
## Basis of classification

Table A divides the total list into two main groups. The basic list con-

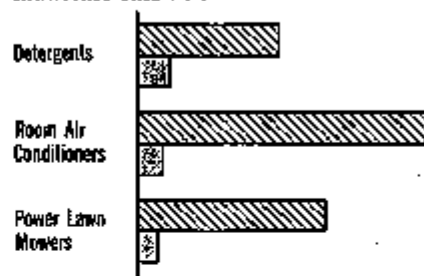
tains 339 products for which production data are available for all years from 1948 to 1963. A supplementary list

## Growth Rate Patterns

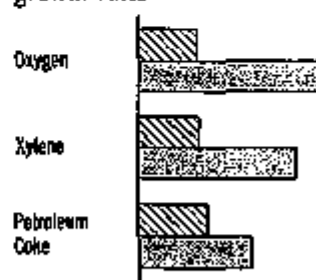
Of the products that grew rapidly from 1948 to 1957, the great majority slowed down from 1957 to 1963



Others have fallen sharply to a moderate rate . . .



A relatively few have exceeded earlier growth rates



DATA: Government and Private Agencies

<sup>1</sup> Earlier articles appeared in the following issues of the Survey: January 1963, April 1967, May 1969, and September 1971.

Table 1.—Frequency Distribution of Average Annual Growth Rates for 339 Products, Based on Change from 1948 to 1963

	Number of products	Percent of total
<b>Fast growing:</b>		
26 percent and over.....	5	
20 to 24.9 percent.....	7	
15 to 19.9 percent.....	10	
10 to 14.9 percent.....	27	
7.5 to 9.9 percent.....	20	
<b>Total.....</b>	<b>79</b>	<b>24</b>
<b>Moderately growing:</b>		
6 to 7.4 percent.....	10	
5 to 5.9 percent.....	12	
3.5 to 4.9 percent.....	20	
<b>Subtotal.....</b>	<b>71</b>	<b>21</b>
2 to 3.4 percent.....	50	
1 to 1.9 percent.....	38	
0 to 0.9 percent.....	26	
<b>Subtotal.....</b>	<b>114</b>	<b>34</b>
<b>Total.....</b>	<b>185</b>	<b>55</b>
<b>Declining:</b>		
0 to 1.9 percent.....	23	
2 to 4.9 percent.....	24	
5 to 6.9 percent.....	11	
7 to 8.9 percent.....	11	
10 percent and over.....	6	
<b>Total.....</b>	<b>84</b>	<b>25</b>
<b>Grand total.....</b>	<b>339</b>	<b>100</b>

<sup>2</sup> Where production figures are not available data are given for sales or consumption.

includes an additional 35 products, mostly new, for which output figures became available at various dates after 1948.

The basic table provides production data for 1948 and for each year from 1960 through 1963. It shows average annual rates of growth for the entire period 1948-63, and also for the following subperiods: 1948-53, 1953-57, 1948-57, 1957-60, 1960-63, and 1957-63. Each of the above terminal years represents a business cycle peak. The products are arrayed according to the size of the average annual growth rate for the period 1948-63, as shown in the sixth column.

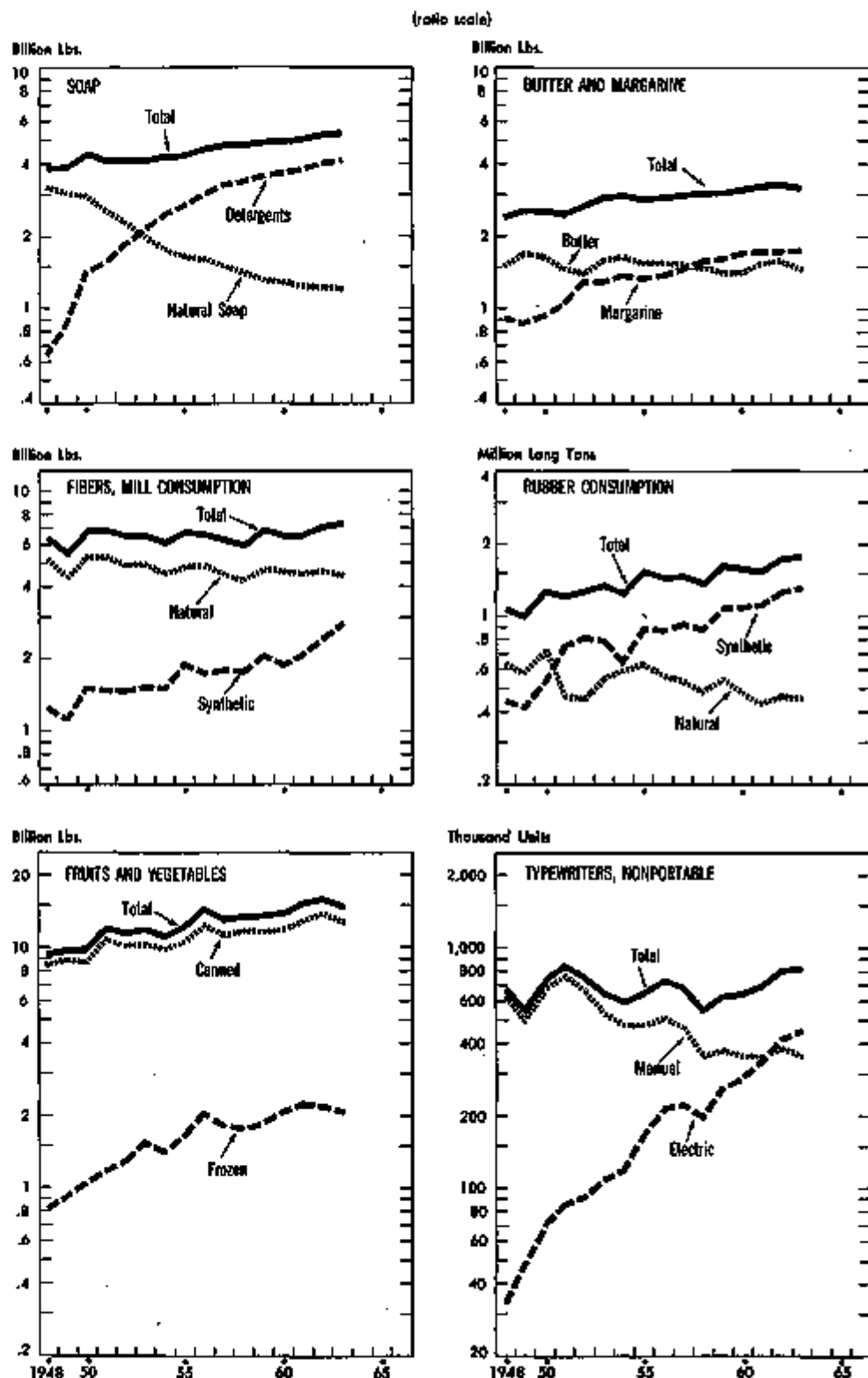
The basic list has been further classified into three broad groups: fast-growing, moderately-growing, and declining. Fast-growing items in table A are those with a growth rate of 7½ percent or more per year (based on 1948-63), that is, with a growth rate approximately twice as large (or more) as that of national output measured by real GNP. The 7½ percent dividing line between fast growing and moderately growing has been employed in previous articles in this series. It is a useful standard but it is obviously arbitrary.

#### Growth rate patterns, 1948-63

Approximately one-fifth of all items are classified as fast growing; more than half are in the moderately-growing group, and one-fourth show negative growth rates. A frequency distribution of average annual rates appears in table 1. For all items combined, the average (mean) growth rate from 1948 to 1963 was 3.7 percent per year, about the same as the expansion in real GNP.

The 70 items in the rapidly expanding group increased at an average rate of 15 percent in the 1948-63 period; nearly three-fourths of them exceeded 10 percent per year. The fast-growing group includes old established lines as well as relatively newly-developed products introduced in the period from the mid-30's to the mid-40's. As might be expected, the newer products in this group experienced the higher rates of growth, averaging close to 20 percent per year,

### Output Growth of New Products in Postwar Period Has Often Been at the Expense of Older Established Lines



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as compared with about 10 percent for the older items.

Practically all of the products within the moderately-growing group are well established, and they represent a high proportion of U.S. industrial output.

For a relatively large number of products, a reduction in output is revealed, despite the substantial expansion in total production since the early postwar period. Most of the products in the declining group are still being produced in large volume, and for some the decreases in output were from abnormally high production levels in 1948. This is particularly true of items where output was earlier discontinued or sharply curtailed because of conversion to war production—such as refrigerators, washing machines, men's suits and overcoats, and some types of farm machinery. But the development of substitutes has also adversely affected production of many products such as wool, coal, soap, and butter, to mention a few.

The growth of supplies from foreign sources has affected domestic output for some products. Thus, although domestic consumption of iron ore has increased substantially, the importation of large quantities of this raw material is associated with a declining trend in domestic iron ore output.

#### Impact of new products on established lines

Most "new" products are substitutes for older, established lines. The rapid growth of output of many of the prod-

Table 2.—Distribution of Average Annual Growth Rates for 339 Products, 1948-57 Compared with 1957-63

	1948-57		1957-63				
	Number of products	Percent of total	Fast		Moderate		Declining
			7.5 percent and over	3.5 to 7.4 percent	0 to 3.4 percent		
Fast: 7.5 percent and over.....	51	24	35	26	9	11	
Moderate: 3.5 to 7.4 percent.....	71	21	9	28	28	11	
Declining: 0 to 3.4 percent.....	97	29	3	25	47	22	
Total.....	319	100	47	61	104	44	
Percent of total.....		100	15	27	29	30	

ucts introduced into the market in the past two decades or so has frequently been accompanied by a decline in products that have been on the market for a long time. The chart on page 22 provides some examples of these contrasting trends.

The net expansion of the new and old products together is frequently small. For the six combinations shown in the chart, average annual growth rates ranged from 0.8 percent for fibers (-0.9 for natural fibers and 5.3 percent for synthetics) to 3.4 percent for rubber (-2.1 percent for natural rubber and 7.5 percent for synthetic rubber). It is important to keep in mind that these combined rates are unweighted. When average unit values of old and new products are widely different (as with manual and electric typewriters, for example), the combined output change computed with unit value weights may show a marked departure from the unweighted change.

#### Rates have varied over time

Within the 15-year span from 1948 to 1963 growth rates of individual commodities and services have, for a number of reasons, varied considerably. The decline in the growth of real GNP, from an average of 3.8 percent per year from 1948 to 1957 to 3.2 percent from 1957 to 1963, was reflected in a general lowering of rates for individual products. Moreover, final demand patterns shifted, causing shifts in the production of final products and materials used in their manufacture. Growth of many new products that had found very wide acceptance in the earlier years diminished. Some of these shifts are summarized in table 2, which provides a cross-tabulation of growth rates for 339 items for the period 1948-57 and for 1957-63.

The proportion of items classified as fast growing drops from 24 percent in the 1948-57 period to 15 percent in the period from 1957 to 1963. The group showing declines, which was 26 percent in the early period, was 29 percent in the later period. Although it is not shown in the table, 55 percent of the 339 items grew more slowly or declined more rapidly from 1957 to 1963 than in the postwar and Korean periods.

Of the 81 items classified as fast growing in the 1948-57 period, only 35 remained in this group in the more recent period, and of this number, only 12 exceeded earlier output rates. Among the latter were oxygen, helium, toluene, formaldehyde, plastic and resin materials, electric blankets, blenders, and air freight transportation. There were 46 items earlier classified as fast growing, based on 1948-57 change, that do not appear in this category on the basis of 1957-63 performance. Of these, 35 had lower positive rates and 11 products had negative rates. Illustrations of these shifts are given in the chart on page 21.

On the other hand, of the 90 items showing 1948-57 declines, only 54 continued to show negative rates for the later period. The remainder in this category had positive growth rates from 1957 to 1963, with a few shifting to the fast-growing group.

#### Acceleration in rates since 1960

Because the national growth rate has shown an acceleration since 1960, it is of some interest to divide the 6-year span from 1957 to 1963 into two sub-periods: 1957-60 and 1960-63. A 3-year span, of course, is very short for growth rate calculations. Moreover, under these circumstances the use of 1960 as a dividing point is not entirely satisfactory, since the entire second half of 1960 was a period of declining output, and some cyclical elements are undoubtedly present in the comparisons.

Table 3.—Distribution of Average Annual Growth Rates for 339 Products, 1957-60 Compared with 1960-63

	1957-60		1960-63				
	Number of products	Percent of total	Fast		Moderate		Declining
			7.5 percent and over	3.5 to 7.4 percent	0 to 3.4 percent		
Fast: 7.5 percent and over.....	54	16	31	13	4	0	
Moderate: 3.5 to 7.4 percent.....	72	21	10	37	22	8	
Declining: 0 to 3.4 percent.....	90	26	12	25	35	17	
Total.....	316	100	53	75	61	25	
Percent of total.....		100	17	24	19	20	

Table A.—Production of Selected Products and Services, 1948, and 1950-63, and Average Annual Rates of Growth for Specified Time Periods<sup>1</sup>

Product or service	Unit of measure	Production					Average annual rates of growth							
		1948	1950	1951	1952	1953	1948-53	1948-53	1953-57	1957-60	1960-63	1948-67	1947-63	

Fast growing—Increased at an average annual rate of 7½ percent or more, 1948-53

Titanium sponge.....	Tons.....	18	5,811	5,722	6,730	7,400	55.3	195.2	68.8	-32.5	11.7	128.9	-13.2
Polyethylene.....	Millions of pounds.....	19	1,357	1,806	2,016	2,270	37.5	48.0	51.3	23.9	18.1	48.6	21.3
Frozen fruit juices, concentrate.....	do.....	24	1,033	1,066	1,221	1,301	33.1	93.4	9.3	3.7	13.1	48.1	7.2
Helium.....	Millions of cubic feet.....	51	942	727	712	2,230	29.8	26.4	16.6	30.0	51.4	21.4	62.3
Argon.....	do.....	30	570	582	817	1,006	28.4	42.3	23.7	12.9	21.0	33.2	16.8
Frozen foods, prepared.....	Millions of pounds.....	40	810	906	968	1,085	25.5	49.6	26.7	2.8	8.6	33.5	8.8
Air conditioners, room.....	Thousands.....	74	1,590	1,600	1,558	1,945	24.4	69.8	11.0	-1.1	7.2	40.0	3.8
Textile glass fiber, production.....	Millions of pounds.....	8	177	149	198	192	22.7	40.9	22.1	18.8	2.8	32.2	2.8
Antibiotics for human consumption.....	Thousands of pounds.....	248	2,988	3,311	3,963	4,183	22.1	45.3	8.8	7.8	12.1	28.9	8.8
Noncellulosic fibers, production.....	Millions of pounds.....	66	577	761	978	1,184	21.0	30.2	20.2	9.8	18.2	28.7	14.3
Dryers.....	Thousands.....	122	1,280	1,236	1,428	1,530	20.9	51.6	15.1	-1.9	8.1	34.1	3.5
Frozen meats.....	Millions of pounds.....	25	350	330	348	389	23.5	45.7	22.9	-4.2	9.9	34.1	-1.7
Air conditioning systems, total.....	Thousands.....	58	350	356	458	582	20.0	27.3	14.3	17.9	18.5	21.4	17.9
Ice-making machines.....	Units.....	5,000	65,000	61,000	71,000	(*)	18.5	35.7	2.1	23.0	13.7	20.1	18.6
Frozen poultry.....	Millions of pounds.....	150	1,357	1,732	1,626	1,783	17.7	25.7	7.6	24.2	11.0	17.3	18.4
Air conditioning systems, total.....	Thousands.....	58	350	356	458	582	20.0	27.3	14.3	17.9	18.5	21.4	17.9
Ice-making machines.....	Units.....	5,000	65,000	61,000	71,000	(*)	18.5	35.7	2.1	23.0	13.7	20.1	18.6
Frozen poultry.....	Millions of pounds.....	150	1,357	1,732	1,626	1,783	17.7	25.7	7.6	24.2	11.0	17.3	18.4
Rubber or latex core mattresses.....	Thousands.....	24	906	923	943	950	17.5	65.4	8.7	1.8	-0.5	32.7	-4.1
Coffee makers, automatic.....	do.....	800	4,535	4,000	5,500	6,500	17.2	43.5	4.3	2.3	11.8	24.7	5.9
Lawn mowers, power.....	do.....	387	2,800	2,508	4,000	3,400	16.3	24.2	25.8	4.3	9.9	26.5	2.8
Spraying plants and nozzles.....	Millions of pounds.....	186	1,062	1,145	1,274	1,480	16.6	24.2	11.2	11.0	12.7	12.8	11.9
DDT.....	do.....	20	164	171	186	179	15.7	23.2	10.2	9.3	3.0	22.6	6.3
Polyvinyl resins, plastic.....	do.....	218	1,203	1,360	1,585	1,780	13.3	18.8	14.5	10.7	13.6	10.8	13.1
Penicillin salts.....	Thousands of pounds.....	102	559	1,103	1,289	1,617	15.0	26.0	-2.0	7.4	8.6	17.6	8.6
Blankets, electric.....	Thousands.....	675	3,335	4,300	4,725	6,400	15.0	7.0	23.4	14.9	15.1	14.0	16.6
Oxygen, high purity.....	Billions of cubic feet.....	15	55	79	104	129	14.8	8.8	8.8	20.3	30.6	8.3	25.6
Television sets, black and white.....	Thousands.....	975	6,706	6,173	6,471	7,139	14.2	48.2	-3.0	-2.7	7.7	23.3	1.8
Magnesium.....	Thousands of short tons.....	30	40	41	99	70	14.1	58.2	-3.4	-31.0	24.9	28.2	-1.1
Air revenue passenger-miles flown.....	Millions of passenger-miles.....	6,000	33,906	34,069	37,491	40,000	14.0	23.8	12.7	6.5	8.2	18.7	7.3
Xylene.....	Millions of gallons.....	51	282	287	354	422	13.8	18.1	3.0	30.5	14.4	8.5	22.2
Picture tubes, sales.....	Thousands.....	1,308	9,014	8,307	9,070	9,965	13.7	47.6	-2.2	-2.4	24.8	34.8	-1.3
Phosphoric acid.....	Thousands of short tons.....	433	2,087	2,254	2,447	2,901	13.6	17.3	13.1	10.0	11.6	14.4	10.8
Adding machines, electric and nonelectric.....	Thousands.....	343	343	345	309	(*)	13.4	40.1	-1.2	9.8	-4.8	21.3	-1.9
Detergents, synthetic.....	Millions of pounds.....	639	3,944	3,774	4,000	4,120	13.4	37.2	11.3	8.8	4.2	19.9	4.4
Air (in-miles flown).....	Millions of ton-miles.....	222	773	885	1,182	1,410	13.1	14.1	8.0	10.3	21.9	11.0	16.2
Disposable, food.....	Thousands.....	175	703	800	980	1,090	13.0	14.2	14.1	11.4	12.8	13.6	12.1
Plastics and resin materials, total.....	Millions of pounds.....	1,426	6,143	6,709	7,942	8,989	12.8	18.3	11.9	12.8	13.6	12.7	12.9
Electricians, nonmilitary.....	do.....	149	602	630	781	830	12.8	14.6	19.8	10.3	11.3	12.9	11.1
Helicopters, nonmilitary.....	Units.....	71	217	291	308	431	12.4	9.2	29.0	-11.2	23.7	17.8	4.8
Frozen foods, total.....	Millions of pounds.....	1,247	6,487	7,183	7,823	8,761	12.4	21.1	9.8	8.4	3.1	15.8	8.7
Gas-fired boilers.....	Thousands.....	31	142	150	162	177	12.3	18.4	9.9	10.6	7.6	14.8	8.1
Petroleum coke.....	Thousands of short tons.....	2,399	13,002	15,067	15,715	18,135	12.1	8.4	11.6	21.6	10.4	9.7	15.8
Vitamin.....	Thousands of pounds.....	2,618	11,094	12,060	12,348	14,374	12.0	12.4	18.6	10.4	10.4	14.1	10.6
Douglas fir (softwood plywood).....	Millions of square feet.....	1,271	7,815	8,519	9,361	9,923	11.8	14.4	10.4	12.7	8.3	12.6	9.8
Floor polishes.....	Thousands.....	185	1,024	1,029	1,014	1,045	11.4	8.1	19.2	29.3	7.7	12.4	12.2
Toilets.....	Millions of gallons.....	84	274	260	361	419	11.3	13.2	6.3	11.2	14.2	10.7	12.1
Ammonia, synthetic anhydrous.....	Thousands of short tons.....	1,276	4,818	5,237	4,818	5,945	11.1	10.7	13.8	8.9	11.8	11.7	10.1
Perchloroethylene.....	Millions of pounds.....	58	309	323	330	324	11.0	17.6	6.5	2.8	18.0	12.6	8.8
Shavers.....	Thousands.....	1,500	5,990	6,000	5,700	(*)	10.4	14.2	17.4	-2.0	8.1	18.8	7.1
Transparent film for packaging.....	Millions of pounds.....	306	709	700	570	910	10.4	13.6	11.0	6.2	5.8	12.6	7.5
Blenders.....	Thousands.....	218	486	516	780	823	10.2	7.4	10.1	6.8	25.0	8.7	12.5
Edgewood wine.....	Thousands of wine gallons.....	1,140	4,019	4,114	4,414	4,807	10.1	4.4	19.8	14.8	5.1	9.8	10.4
Liquid petroleum gases.....	Millions of barrels.....	67	230	238	205	271	9.9	12.5	8.8	10.6	6.1	11.0	6.2
Formaldehyde.....	Millions of pounds.....	617	1,872	1,742	2,303	2,662	9.6	12.5	4.3	11.6	10.9	9.2	11.2
Ethylene glycol.....	Thousands of pounds.....	367	1,297	1,153	1,494	1,489	9.6	11.2	17.8	2.0	14.1	14.1	14.5
Dishwashers, motor-driven.....	Thousands.....	225	556	628	720	859	9.5	-4.4	21.3	12.5	16.6	6.3	14.5
Nitric acid.....	Thousands of short tons.....	1,185	3,815	3,350	2,370	4,197	8.1	9.3	12.7	7.3	8.3	10.6	6.7
Aluminum, primary ingots.....	do.....	628	2,044	1,904	2,118	2,513	8.1	18.0	7.1	6.9	4.7	11.4	5.8
Frozen vegetables except potatoes.....	Millions of pounds.....	440	1,408	1,697	1,503	1,481	8.1	38.3	2.1	7.1	1.0	12.1	4.0
Beans, chemical and motor grade.....	Millions of gallons.....	194	457	445	540	561	8.0	8.1	6.1	11.2	12.5	8.8	11.9
Urea and melamine resins.....	Millions of pounds.....	149	599	640	699	823	8.0	11.8	7.0	4.6	8.2	8.9	6.9
Butadiene.....	Millions of gallons.....	601	1,683	1,813	2,145	2,321	8.0	11.8	7.0	8.9	8.9	8.9	6.9
Electric.....	Millions.....	36	100	97	94	115	6.5	16.6	5.3	2.8	4.9	11.0	4.8
Parasitic (oil).....	Millions of pounds.....	31	64	62	62	70	6.4	21.7	4.4	3.9	3.0	11.7	3.5
Hydrogen.....	Billions of cubic feet.....	25	65	66	76	85	6.4	-2.1	12.5	18.8	13.2	4.2	13.0
Rubber, synthetic, all types.....	Thousands of long tons.....	468	1,434	1,404	1,674	1,805	6.3	11.7	7.2	8.7	3.8	8.6	6.2
Calorine gas.....	Thousands of short tons.....	1,640	4,437	4,603	4,143	4,445	6.3	11.3	9.0	6.6	10.3	8.5	5.5
Gasoline engines, except outboard, automobile, and aircraft.....	Thousands.....	2,140	6,022	6,066	7,128	(*)	6.3	8.7	18.8	6.0	8.6	8.7	7.7
Phthalic anhydride.....	Millions of pounds.....	150	404	374	427	474	7.4	7.4	11.9	4.0	5.7	9.4	4.9
Phenol, synthetic and by products.....	do.....	297	774	776	826	886	7.4	5.2	9.8	11.7	5.0	7.2	8.8
Electric power, total.....	Billions of KWH.....	337	843	878	945	1,005	7.4	8.8	8.6	8.6	6.3	8.7	5.9
Motor (in-miles truck transportation).....	Billions of tons and mi.....	110	398	418	382	346	7.4	13.3	4.0	6.6	5.1	9.1	5.3

Moderately growing—Increased at an average annual rate of 0 to 7.4 percent, 1948-63

Natural gas, marketed.....	Billions of cubic feet.....	5,145	12,771	12,264	13,677	14,515	7.2	10.3	6.2	6.1	4.4	3.4	5.2
Knit cloth for sale.....	Millions of pounds.....	110	248	281	264	(*)							

Table A.—Production of Selected Products and Services, 1943, and 1960-63, and Average Annual Rates of Growth for Specified Time Periods—Continued

Product or service	Unit of measure	Production					Average annual rates of growth						
		1945	1960	1961	1962	1963	1945-63	1949-63	1955-67	1957-60	1960-63	1963-67	1967-63
Moderately growing—Increases at an average annual rate of 0 to 7.4 percent 1945-63—Continued													
Potash—Marketable Production	Thous. of short tons	1,149	2,438	3,792	2,462	(*)	5.6	10.9	4.3	6.1	-3.6	7.9	1.2
Mixers, food, std. and portable	Thousands	1,570	3,245	2,235	2,575	2,583	5.6	2.7	17.6	-2.4	3.2	9.7	-2.2
Man-made fibers, total	Millions of pounds	1,199	1,881	1,995	2,493	2,691	5.5	4.6	4.9	2.2	12.8	4.4	7.2
Special industrial and absorbent paper	Thous. of short tons	415	750	844	912	833	5.3	1.9	5.4	4.9	7.1	5.3	6.0
Pulpwood consumption	Thousands of cords	21,189	48,485	42,191	44,000	46,159	5.3	4.8	6.2	6.3	4.5	6.0	4.4
Asphalt	Millions of barrels	53	96	101	109	111	8.3	6.9	4.3	6.8	4.3	5.7	4.5
Ethyl alcohol	Millions of gallons	324	686	676	635	692	8.2	6.9	-1.4	10.3	6.1	2.6	7.7
Sanitary and tissue paper	Thous. of short tons	1,138	2,232	2,311	2,424	2,516	5.1	4.8	6.2	4.8	4.5	5.4	4.7
Waxes, blooms, and shirts	Millions	94	157	153	197	166	5.0	11.1	3.0	1.3	1.6	7.4	1.5
Phonographs including radio and phonograph combinations	Thousands	2,680	4,522	3,560	4,945	-5,142	4.9	-14.0	40.7	-1.7	4.4	7.1	1.8
Shipping containers	Millions of square feet	62	109	116	123	128	4.9	5.1	3.9	3.9	5.5	6.1	4.7
Fluorescent lamps	Millions	79	125	134	162	169	4.8	1.6	6.4	6.6	6.6	3.8	6.6
Aluminum castings	Million pounds	472	775	782	827	860	4.6	5.9	8.4	1.0	7.0	6.3	4.0
Carbon dioxide	Thousands short tons	827	898	911	1,022	1,064	4.8	7.1	2.6	2.8	5.8	6.1	4.4
Trucks, electric, rider-type	Units	2,428	5,640	4,581	5,683	6,974	4.8	21.2	-15.0	6.4	7.3	2.6	6.9
Oil pipeline transportation	Billions of ton-miles	128	229	233	236	241	4.8	7.2	7.0	9.0	2.1	7.1	1.5
Distillate fuel oil	Million barrels	321	687	697	720	704	4.8	8.7	6.1	1.1	4.7	8.5	2.2
Passenger cars	Thousands	3,909	5,875	5,443	5,923	7,538	4.6	9.4	8.8	2.0	4.8	5.1	3.8
Heating pads	do.	1,600	2,575	2,780	2,900	3,070	4.5	3.2	2.3	7.5	8.1	2.8	8.9
Oleomargarine	Million pounds	908	1,605	1,724	1,736	1,744	4.4	7.3	3.2	6.0	7.7	5.5	2.8
Paperboard, including wet machine board	Thousands short tons	9,608	15,351	16,529	17,623	18,248	4.4	5.6	3.3	3.7	4.8	4.6	4.3
Trailers, truck	Thousands	44	86	67	80	83	4.4	17.1	-15.0	2.1	8.5	3.7	6.6
Industrial explosives	Million pounds	689	964	969	1,109	1,207	4.3	3.3	6.2	2.8	7.0	4.1	5.6
Frozen fruits	do.	870	689	795	699	620	4.2	7.9	6.5	9.0	0.8	-1.2	2.0
Oleones, commercial	Millions	10,780	15,206	19,665	20,289	20,589	4.2	6.7	3.4	3.2	2.7	5.2	2.0
Fine paper	Thousands short tons	1,141	2,775	1,919	1,964	2,123	4.2	2.6	3.9	5.4	6.1	3.2	6.8
Dresses, all sizes: Girls', children's, infants'	Millions	62	115	111	109	113	4.2	16.0	2.2	2.4	-1.2	6.5	4.4
Bag paper	Thousands short tons	796	1,255	1,265	1,376	1,380	4.1	2.6	2.8	7.4	4.4	3.2	6.4
Glass containers	Million gross	90	150	165	176	182	4.1	5.4	2.5	2.6	4.4	4.0	3.8
Warm-air furnaces	Thousands	777	1,253	1,175	1,307	1,414	4.1	4.1	2.2	2.5	4.1	4.3	3.8
Passenger car tires	Millions	67	106	103	118	122	4.1	2.9	3.8	2.8	5.1	3.8	4.4
Lamps, bulbs, and tubes	do.	1,837	2,921	2,927	3,202	3,202	4.0	2.7	6.1	2.9	4.2	4.3	2.5
Salt	Thousands short tons	16,400	24,479	24,787	28,800	29,700	4.0	4.9	3.4	3.4	5.3	4.2	2.6
Sulfuric acid	do.	11,450	17,883	17,845	19,251	20,513	4.0	6.1	4.1	2.8	4.7	4.1	2.7
Beef	Million pounds	9,075	14,327	14,296	15,296	16,422	4.0	6.3	3.4	1.2	3.7	5.1	2.7
Paper and board, total	Thous. of short tons	31,897	54,444	54,646	57,645	58,045	3.9	4.0	3.0	3.9	4.3	3.8	4.1
Ethyl acetate	Millions of pounds	62	107	102	102	116	3.9	4.5	3.2	5.2	9.9	4.5	2.0
Concrete reinforcing bars	Thous. of short tons	1,643	2,214	2,442	2,389	2,583	3.8	3.7	5.6	-1.8	6.8	4.5	2.6
Motor fuel excluding aviation	Millions of barrels	876	1,496	1,416	1,401	1,604	3.7	6.1	3.0	2.0	2.3	4.7	2.1
Cement, portland	do.	296	339	323	346	368	3.7	4.3	3.1	2.3	2.4	4.2	2.9
Fans, all types	Thousands	3,796	5,572	5,233	5,647	6,500	3.7	6.8	4.4	-1.1	13.1	2.8	3.7
Water heaters, gas	do.	1,518	2,584	2,672	3,370	3,503	3.7	7.8	3.8	1.7	-1.8	5.9	1.5
Tungsten, mine shipments	Thous. of pounds	3,940	5,692	5,872	6,021	6,746	3.7	19.6	-13.1	3.9	-1.1	8.3	4.8
Gypsum wallboard, including lath	Millions of square feet	5,035	7,745	7,682	8,217	8,693	3.7	3.7	1.9	5.9	3.8	2.9	4.9
Printing paper	Thous. of short tons	3,151	4,700	4,791	4,910	5,253	3.6	2.4	4.8	5.1	4.4	2.8	4.8
Spills drugs	Thousands of pounds	2,680	5,089	4,181	4,257	4,339	3.6	11.8	-4.8	5.7	-2.9	4.2	2.2
Shipping sack paper	Thous. of short tons	567	899	881	964	964	3.6	6.7	2.6	5.8	4.8	4.5	1.6
Antine	Millions of pounds	92	128	123	139	155	3.5	4.2	0.0	2.0	10.2	2.3	3.4
Trailer coaches, mobile home type	Thousands	68	104	80	118	143	3.4	-2.2	11.8	-1.4	11.7	5.7	3.1
Rubber consumption, nat. and syn., total	Thous. of long tons	1,049	1,556	1,429	1,719	1,764	3.4	4.5	2.3	2.1	4.1	3.6	3.1
Revolving tubes	Millions	206	383	371	361	338	3.4	15.3	1.1	-4.8	-4.9	9.3	-4.9
Water closets	Thousands	3,405	4,728	4,346	4,820	5,593	3.4	4.4	2.3	9.4	2.0	2.7	4.5
Dungarees and waistband overalls, men's	Thousands of dozens	2,055	2,965	3,000	3,371	4,501	3.4	11.4	-12.0	3.4	14.0	2.2	3.2
Insulating board and hardboard	Thous. of short tons	1,270	1,799	1,844	1,985	2,102	3.4	1.8	3.3	4.6	5.5	2.3	5.7
Acetin anhydride	Millions of pounds	775	1,050	1,309	1,342	1,370	3.3	3.2	3.2	3.2	5.0	1.6	6.1
Superphosphate	Thous. of short tons	1,900	2,672	2,744	2,787	3,107	3.3	3.4	2.9	2.9	5.2	2.9	4.0
Fertilizers, commercial	do.	17,593	30,268	29,542	26,780	28,141	3.2	4.3	1.1	2.9	3.7	2.5	3.8
Aircraft, civilian, military weight	Millions of pounds	10	38	22	30	16	3.2	0.0	31.8	2.4	-17.0	8.2	-6.2
Calcium carbide, commercial	Thous. of short tons	683	1,038	1,042	1,068	1,086	3.2	2.0	6.4	2.6	1.1	4.6	1.3
Steel sheets and strip	do.	18,743	29,004	28,780	28,480	31,042	3.1	6.5	-1.3	4.3	2.3	2.9	2.3
Freezers, farm and home	Thousands	840	1,045	1,060	1,070	1,041	3.1	15.0	-9.7	1.4	1.4	3.3	2.8
Carbon black	Thous. of short tons	849	1,027	990	1,028	1,028	3.1	4.4	2.8	4.5	3.8	3.7	2.2
Crude runs to stills	Millions of barrels	2,031	2,938	2,887	3,070	3,171	3.0	4.7	8.1	7.2	2.4	4.0	1.5
Lavatories, total	Thousands	3,303	4,187	4,071	4,369	5,113	3.0	-3.0	6.4	6.4	6.9	9.0	6.1
Flash tanks, vitreous china	do.	3,082	4,146	3,989	4,125	4,605	3.0	-3.0	8.4	4.3	5.1	1.9	4.7
Sugar, refined	Thous. of short tons	4,974	9,709	9,624	9,860	10,650	2.9	4.8	2.4	3.1	3.1	2.0	3.3
Diesel and semi-diesel engines	Thousands	100	150	144	144	144	2.9	3.3	1.9	3.1	5.3	2.4	2.9
Oleofins, refined	Millions of pounds	187	290	280	340	397	2.8	2.9	1.0	2.4	3.8	2.0	3.1
Distilled spirits consumption	Millions of wine gals.	171	225	241	254	259	2.8	2.7	2.1	3.0	3.3	2.4	3.4
Fabricated structural steel	Thous. of short tons	3,718	5,506	5,821	5,861	6,097	2.8	6.5	6.3	-4.9	2.3	6.1	-2.0
Shirts, dress, sport, business, utility	Thousands of dozens	10,443	22,206	22,317	24,725	24,552	2.8	6.3	-1.7	3.0	2.3	2.7	2.9
Cases, typewriter (expressed in terms of metal consumed)	Thous. of short tons	2,344	4,344	4,016	5,170	4,994	2.8	4.7	3.0	1.6	1.6	2.9	1.2
Canned fruits	Millions of pounds	2,500	3,790	4,087	4,232	3,748	2.7	2.0	4.4	3.3	-4.2	2.6	1.4
Canned vegetables (commercial pack)	do.	5,917	8,621	9,898	9,584	8,594	2.7	4.3	1.3	1.3	3.2	3.0	2.2
Oleose	do.	1,068	1,478	1,635	1,685	1,825	2.7	4.1	1.2	1.7	3.3	2.8	2.6
Newspaper consumption	Thous. of short tons	5,141	7,376	7,330	7,499	7,647	2.6	3.6	2.6	2.6	2.8	3.2	1.7
Uncoated gypsum	do.	6,249	8,691	8,340	8,819	9,192	2.6	3.8	2.0	2.4	2.2	2.4	2.8
Work pants	Thousands of dozens	3,800	5,673	5,371	6,254	6,165	2.6	3.9	1.9	2.5			

Table A.—Production of Selected Products and Services, 1942, and 1960-63, and Average Annual Rates of Growth for Specified Time Periods<sup>1</sup>—Continued

Product or service	Unit of measure	Production					Average annual rates of growth							
		1942	1960	1961	1962	1963	1942-63	1942-63	1943-47	1947-60	1960-63	1942-67	1967-63	

Moderately growing—Increase at an average annual rate of 0 to 7.4 percent 1942-63—Continued

Exterior frames.....	Thous.	4,317	5,344	5,058	5,088	5,835	2.0	3.3	1.0	.5	3.0	2.2	1.7
Nickel consumption.....	Thous. of short tons	94	106	118	119	123	1.0	2.4	.6	.4	2.0	2.0	.4
Bathtubs, total.....	Thousands	1,545	2,111	2,073	2,342	2,000	1.9	-2	-7	4.1	7.3	-4	6.6
Immersing mattresses, other than for crabs.....	do.	1,526	2,093	2,055	2,342	2,000	1.9	-2	-7	4.1	7.3	-4	6.6
Bed springs, total.....	do.	1,526	2,093	2,055	2,342	2,000	1.9	-2	-7	4.1	7.3	-4	6.6
Shab zinc, consumption.....	Thous. of short tons	818	978	931	1,032	1,081	1.8	3.8	-1.3	-2.1	7.3	1.5	2.4
Asphalt shingles.....	Thousands of squares	30,226	38,226	40,337	41,418	39,521	1.8	1.1	3	6.1	1.1	7	2.6
Beetle, shipments from mines and processing plants to consumers.....	Thous. of long tons	1,323	1,584	1,123	1,334	1,445	1.8	5.0	0	-2.2	-2.3	2.9	-2.8
Sodium sulfates.....	Thous. of short tons	819	1,072	1,125	1,231	1,208	1.8	2.6	0	.9	4.0	1.4	2.4
Kitchen sinks, total.....	Thousands	2,711	2,732	2,732	3,097	3,407	1.7	-4.4	-2.8	1.3	17.8	-2.7	20.2
Brick, common and face.....	Mill. of standard brick	5,707	6,502	6,428	6,913	7,308	1.7	-2	-2.2	1.8	4.4	1.1	2.7
Glass, sheet (window).....	Thous. of boxes 50 sq. ft.	18,947	20,738	20,836	22,263	24,908	1.7	-2	-2.2	1.8	4.4	1.1	2.7
Ice cream.....	Millions of pounds	2,721	3,248	3,340	3,398	3,481	1.6	1.3	1.8	2.8	1.1	1.5	1.7
Automotive replacement batteries.....	Thousands	25,075	26,229	28,311	32,438	31,840	1.6	-1.2	-2.4	1.8	8.6	1.4	3.6
Vacuum cleaners.....	do.	2,351	2,212	2,283	3,712	4,248	1.6	-3.7	-3.7	1.8	8.0	-6	4.0
Folding paper boxes.....	1947-48-100	90	124	124	134	134	1.6	4.1	1.2	1.2	5	2.8	-1
Mill consumption of rayon and acetate.....	Millions of pounds	1,149	1,066	1,127	1,264	1,480	1.5	1.3	-1.0	-8.6	10.9	2	3.4
Heavy, shipments, total.....	Millions of box pairs	144	151	169	172	180	1.5	2.1	-2.1	0	8.0	1.2	3.4
Pork, excluding lard.....	Millions of pounds	10,065	11,806	11,413	11,841	12,479	1.4	1	1.0	2.6	2.1	1.4	1.9
Iron.....	Thousands	7,800	6,470	7,415	8,400	9,000	1.4	1	1.8	-5.6	12.0	1.4	1.8
Confectionery sales.....	Millions of pounds	2,672	3,004	3,113	3,175	3,290	1.4	3	1.4	2.9	2.0	1.4	2.9
Shoes and slippers.....	Millions of pairs	480	600	568	698	691	1.4	2.1	2.0	1	1	2.5	2
Lubricants.....	Thousands of barrels	51	59	59	61	63	1.4	4	1.5	2.2	2.0	0	2.1
Steel ingots and steel for castings.....	Thous. of short tons	1,423	1,854	1,749	1,714	1,750	1.3	1.8	1.0	4.4	-1.8	1.4	1.2
Clay sewer pipe and fittings, vitrified.....	Thousands	37	114	109	98	100	1.3	5.9	3.8	-2.8	-4.3	4.7	-2.6
Drinking fountain.....	Millions of pounds	283	329	344	344	352	1.3	-1.2	3.4	1.6	2.3	8	1.0
Frozen seafood.....	Thousands of pounds	632	882	700	817	928	1.3	-1.4	4.5	4.1	-2.7	1.2	4.4
Barbiturates.....	Millions	5,734	6,817	6,018	6,748	5,934	1.3	8	1	6.1	1	4	2.6
Cigars, production.....	Thous. of short tons	1,888	2,598	2,544	2,473	2,250	1.2	13.2	4.7	-13.9	-5.6	9.3	-6.0
Sulfur native (Fresch) and recovered.....	Thous. of long tons	4,014	5,710	5,244	5,694	5,591	1.2	2.3	2.2	-1.4	1.0	2.2	-3
Shower stalls.....	Thousands	145	106	184	182	182	1.2	4.2	3.1	-1.4	-8.2	3.7	-2.4
Pig iron.....	Thous. of short tons	10,065	11,806	11,413	11,841	12,479	1.2	4.5	1.1	-5.2	2.7	3.0	-2.4
Rayon and acetate, production.....	Millions of pounds	1,124	1,029	1,086	1,272	1,340	1.2	1.2	-1.2	-3.3	9.4	1	1.0
Copper, consumption.....	Thous. of short tons	1,214	1,148	1,237	1,372	1,423	1.1	3.4	-2.6	-2.6	7.4	2	2.8
Truck and bus tires.....	Thousands	14,483	14,483	15,846	15,735	16,580	1.0	2	-2.3	2.7	5.3	-9	4.0
Dresses, women's.....	Millions	227	254	252	251	263	1.0	2.7	-3	-3	1.2	1.3	5
Ranges, electric including built-in.....	Thousands	1,600	1,484	1,530	1,675	1,779	1.0	-4.8	2.3	3.1	7.7	-1.7	5.4
Finished steel products, total.....	Thous. of short tons	65,973	71,149	66,125	70,582	76,464	0	4.0	-2.8	-2.8	2.0	2.2	1.8
Fasting tile, glazed and unglazed (hollow).....	Millions of brick	322	447	424	412	344	0	6.6	-3	-2.6	-3.5	2.6	-3.1
Fermented malt liquor (beer).....	Thousands of barrels	83,124	93,415	85,030	86,832	100,431	0	9	-7	1.5	2.5	2	2.0
Shab zinc, primary.....	Thous. of short tons	759	890	847	870	898	0	8.1	1.6	-8.7	4.0	2.6	-1.5
Waste paper consumption.....	do.	7,485	8,032	8,015	9,075	8,735	0	2.4	-1	2.1	-1.1	1.3	5
Bigdies.....	Thousands	2,750	2,253	2,570	2,954	2,115	0	-6.3	-1.3	10.9	6.2	-4.0	2.6
Mill consumption of all fibers.....	Millions of pounds	6,406	6,422	6,571	7,055	7,359	0	5	-1.0	1.3	2.8	-3	2.6
Radial, including automobile.....	Thousands	16,600	17,127	17,374	19,182	18,281	0	-7	-4.1	2.0	2.2	-7	2.9
Typewriters, standard, including portables.....	do.	1,173	1,180	1,119	1,294	1,290	0	7	1.8	8.1	-10.3	3.2	-3.8
Calculating machines, electronic and nonelectronic.....	do.	123	123	119	123	123	0	-6	-2.4	5.6	-6	4.4	1.4
Clocks.....	do.	9,694	8,200	8,966	9,828	10,790	0	-3	3.4	-4	8.1	-1.9	4.8
Toasters, automatic.....	do.	3,638	3,345	3,825	3,785	2,855	0	-5.8	7.3	-2.7	5.7	3	9
Trucks and buses.....	do.	1,378	1,104	1,134	1,280	1,463	0	-2.6	-2.1	2.8	7.0	-2.4	4.8
Lard.....	Millions of pounds	2,324	2,583	2,617	2,480	2,473	0	3	3	3	-1.5	1.0	-6
Reclaimed rubber, production.....	Thous. of long tons	267	293	284	281	281	0	2.1	-1.8	2.3	-1.4	3	4
Dyes.....	Millions of pounds	281	156	167	189	240	0	-2.1	-2.7	2.9	2.4	-2.7	6.6
Pipe and tubing.....	Thous. of short tons	0,382	7,082	7,087	7,103	7,443	0	7.5	3.6	-13.4	0	5.2	-7.8
Sheep and lamb skins.....	Thousands of skins	23,492	20,478	21,891	20,321	24,374	0	-2.3	-2.5	8.0	4.1	-3.0	5.1
Sodium silicate.....	Thous. of short tons	480	497	525	532	502	0	4.7	1	-6.5	3	2.5	-3.2
Sodium carbonate (soda ash).....	do.	4,576	4,558	4,516	4,607	4,482	0	1.3	-1.1	-7	0	2	1
Lamb and mutton.....	Millions of pounds	747	766	832	800	770	0	-1.5	-8	2.8	1	-6	1.4
Fiber and wall furnaces.....	Thousands	530	475	447	480	525	0	1	6	-4.0	3.5	-1.3	1.9
Malleable iron castings.....	Thous. of short tons	941	821	724	808	833	0	1	8	-2.8	4.4	-1.0	1.8
Oak flooring.....	Millions of board feet	882	879	786	750	833	0	2.3	-1.3	-1.1	-1.2	1.9	-1.5
Pick-up hay bales.....	Thousands	48	49	48	43	48	0	10.2	-3.4	-10.3	-7	2.6	-6.6
Lead, consumption, primary and secondary.....	Thous. of short tons	1,184	1,021	1,027	1,110	1,136	0	1.2	-1.4	-2.6	3.0	8	0

## Showing declining trends, 1942-63

Railroad revenue (weight ton-miles).....	Billion ton-miles	641	475	506	608	628	-1	-1.8	5	-2.5	3.0	-3	-2
Lead, refined, production (domestic and foreign ores).....	Thousand short tons	407	383	400	376	398	-1	2.8	2.4	-10.5	1.4	3.1	-4.8
Gray iron castings.....	do.	13,207	11,594	10,824	11,533	12,763	-3	7	-2.0	-2.9	2.3	-5	1
Washing machines, electric and gas.....	Thousands	4,190	3,504	3,444	3,785	4,029	-3	-2.1	1.4	-3.9	6.2	-1.1	1.0
Coats, trimmed and untrimmed, women's.....	Thousands	25,574	23,544	24,294	24,029	24,685	-2	-1.2	1.6	-1.5	1.4	-4	0
Creamery, butter.....	Million pounds	1,304	1,435	1,530	1,570	1,453	-3	1.3	-1.2	-2.2	1.1	2	-1.1
Crowns.....	Million gross	333	285	303	309	316	-3	-5	-1.5	-4.2	4.1	-5	-1
Flour, wheat.....	Million barrels	142	130	133	134	135	-3	-4.3	1.7	2.1	1.3	-1.7	1.7
Silver, mine production.....	Thousands of fine oz.	37,080	30,765	34,784	26,798	25,444	-4	0	0	-7.5	4.8	-1.8	-1.6
Lumber, total.....	Billions of board feet	37	33	32	33	36	-4	1	-2.7	0	1.7	-1.2	1.8
Suits, men's.....	Thousands	23,412	21,816	18,787	20,318	21,687	-5	-1.8	-2.0	2.2	4	-1.8	1.3
Gloves and mittens, all types.....	Million pair	346	328	314	335	330	-5	-1.4	8	-4	7	-6	1
Bus transportation.....	Mill. of pass. miles	24,000	19,806	19,703	21,279	22,600	-6	0	-8.3	-1.6	3.2	-1.5	8
Cotton broad woven goods.....	Million linear yards	0,640	0,366	0,186	0,248	0,778	-6	1.1	-1.7	-6	-2.1	1	-1.4
Water heaters, electric.....	Thousands	1,048	715	785	980	860	-6	-5.6	-6	-2.7	9.0	-2.9	2.9
Raw cotton consumption.....	Million pounds	4,464	4,191	4,082	4,185	4,841	-7	0	-2.3	1.1	-1.3	-1.0	-1
Silk consumption.....	Thousand pounds	7,400	6,000	6,700	6,500	6,680	-8	1.1	1.6	-6.0	-1.6	1.3	-2.7
Tin consumption, primary and secondary.....	Thousand long tons	91	81	78	70	78	-10	1.1	-1.2	-4	-1.3	-1.2	-8
Refrigerators, electric.....	Thousands	4,760	3,475	3,480	3,775	4,125	-10	-5.2	-2.1	1.2	6.6	-2.8	3.6
Cast iron boilers (round and square).....	Million pounds	283	189	189	222	222	-11	-4.6	-4	-2.7	6.6	-2.7	1.3
Steel castings.....	Thousand short tons	1,779	1,592	1,217	1,423	1,404	-11	0	0	-7.6	2.6	1	-2.8
Steel barrels and drums, heavy type.....	Millions	27,070	21,655	22,010	23,365	25,063	-11	-2.7	1.9	-7.0	3.1	-8	-1.4
Canned fruit juices.....	Million pound	2,458	2,180	2,084	2,286	2,408	-12	-4.8	4.6	-2.1	-1.8	-7	-2.9
Fine clay, sold or used by producers.....	Thousand short tons	0,030	0,015	0,035	0,070	0,105	-13	3	1.0	-2.6	0.8	9	-4.3
Cattle hides and side kip.....	Thous. hides and skins	26,070	21,000	22,740	22,628	21,553	-12	-1.0	1.5	-4.9	0.6	-1.2	-2.7
Zinc, mine.....	Thousand short tons	830	436	464	506	527	-12	-2.8	-7	-6.6	0.6	-1.9	-2
Work shirts, men's.....	Thousands of dozens	4,446	3,586	3,620	3,636	3,758	-14	2.3	-6.0	-3.6	0	-1.3	-1.6
Asphalt roll roofing.....	Thousands of squares	28,913	21,754	21,406	22,959	23,610	-16	-2.6	-4.0	7	2.8	-3.7	1.7
Rayon the end.....	Million pounds	261	240	213	208	196	-16	11.3	-7.0	-8.5	-8.2	2.5	-7.3
Wool consumption, carpet shags.....	do.	206	105	140	149	161	-17	8.1	-1.6	9.8	-8.8	-6.8	3.8
Cooking stoves, gas, domestic.....	Thousands	2,750	1,814	1,820	1,903	2,075	-18	-4.0	-2.5	-2.7	4.7	-1.6	9
Open stoves.....	do.	11,230	7,958	8,814	9,022	9,227	-19	-7	-3.5	-7.0	3.0	-2.0	-1.7
Aluminous coal.....	Millions of short tons	6,900	418	403	423	452	-19	-5.3	1.0	-5.5	2.8	-2.2	-1.4
Tractor implement tires.....	Thousands	3,235	3,620	3,728	3,817		-20	-0.2	-1.1	-5	5.7	-4.8	2.4



Table A.—Production of Selected Products and Services, 1948, and 1960-63, and Average Annual Rates of Growth for Specified Time Periods—Continued

Product or service	Unit of measure	Production					Average annual rates of growth						
		1948	1960	1961	1962	1963	1948-63	1948-63	1960-63	1967-69	1960-63	1948-67	1957-63
Showing declining trends—Continued													
Wire and wire products	Thous. of short tons	4,801	2,975	2,026	2,160	2,138	-2.1	-2.4	-2.1	-3.9	1.8	-2.7	-1.1
Coke, by-product and beehive	do.	74,852	67,229	51,711	51,010	64,236	-2.1	-1.0	-9.9	-2.0	-1.8	-2.5	-5.1
Outboard motors	Thousands	499	488	343	360	282	-2.1	-1.5	8.3	-10.0	-8.2	2.8	-2.1
Iron ore	Millions of long tons	101	89	71	73	474	-2.3	3.2	-2.0	-5.7	-6.8	-5.2	-8.2
Gold, mine production	Thousands of fine oz.	2,040	1,607	1,648	1,540	1,277	-2.3	-6.6	-2.3	-2.2	-5.8	-1.3	-2.5
Cresote oil	Millions of gallons	145	93	88	91	99	-2.5	0	-4.0	-2.1	2.1	-2.1	-3.2
Manufactured tobacco	Millions of pounds	245	173	173	160	158	-2.5	-3.1	-2.8	-1.1	-1.0	-2.4	-1.1
Suits, women's	Thousands	14,303	9,419	9,271	9,678	9,841	-2.7	-1.0	-0.3	-0	1.8	-4.7	7.0
Veal	Millions of pounds	1,423	1,108	1,045	1,015	927	-2.8	2.3	-1.1	-10.1	-5.7	-7.9	-5.1
Lead, mine	Thous. of short tons	390	247	263	237	251	-2.9	-2.6	-4.4	-9.9	-1.0	-4.8	-2.2
Overcoats and lapellets, men's	Thousands	0,193	6,293	4,886	4,811	3,848	-3.0	-1.7	-2.9	1.6	-0.3	-2.2	-4.0
Condensed and evaporated milk	Millions of pounds	3,755	2,008	2,031	2,407	2,305	-3.0	-0.2	0	-2.5	-3.8	-2.9	-3.2
Whisky, production	Millions of tax gallons	171	140	146	113	105	-3.2	-11.0	7.2	7.6	-11.0	-3.9	-2.2
Residual fuel oil	Millions of barrels	490	332	318	295	285	-3.2	-7.7	-1.9	-7.2	-5.6	-1.3	-6.0
Latex	Thousands	25	16	16	18	18	-3.3	8.2	-12.7	-10.4	0	-1.6	-4.4
Wool consumption, apparel and carpet	Millions of pounds	622	411	412	420	412	-3.4	-6.5	-7.0	2.7	1.1	-6.8	1.9
Gas-fired direct heating equipment	Thousands	2,094	1,211	1,089	1,127	1,218	-3.5	-4.3	-2.7	-2.4	3.3	-2.7	-2.7
Woolen and worsted woven goods	Millions of linear yds.	408	266	237	310	284	-3.6	-7.0	-2.3	-0.9	1.1	-6.7	-4.4
Calf and kid skins	Thousands of skins	10,488	6,332	6,391	6,981	5,598	-4.1	-1.0	-1.0	-11.8	-4.0	-8.0	-2.2
Methanol, natural	Thousands of gallons	2,305	2,182	1,604	1,195	1,235	-4.2	-2.8	-4.4	3.4	-17.0	-2.1	-7.4
Milking machines	Thousands	62	28	20	30	32	-4.3	-6.6	-12.2	3.8	4.6	-0.6	-4.3
Wool consumption, apparel class	Millions of pounds	465	244	263	280	251	-4.3	-5.0	-2.4	7.7	-7.8	-7.7	-7.7
Carpets and rugs, wool type	Millions of sq yds.	90	54	44	43	41	-4.5	-5.7	-4.4	-1.2	-8.7	-5.1	-6.0
Ponderosa Pine doors	Thousands	4,891	1,848	1,686	1,087	1,080	-4.7	-0.8	-5.0	-1.3	8.8	-7.8	-2.3
Railroad Revenue passenger miles	Mill. of passenger-mi.	41,200	21,500	20,300	19,800	18,800	-5.0	-4.8	-5.1	-6.9	-3.3	-5.1	-5.1
Maple, beach and birch flooring	Million of board feet	76	34	37	33	34	-5.2	-8.5	-1.7	-7.2	-2.2	-5.5	-4.7
Power sprayers and dusters	Thousands	131	74	32	60	34	-5.4	-8.8	4.2	-9.2	-10.0	-3.1	-2.5
Feature movies	Number	308	164	131	147	155	-5.6	-1.2	-1.4	-22.0	2.2	-1.3	-11.6
Local transit, passengers carried	Millions	17,312	7,821	7,342	7,123	5,874	-6.0	-8.6	-8.3	-3.4	-3.0	-3.2	-7.5
Railroad freight cars	Thousands	115	67	32	37	46	-6.1	-8.1	4.7	-17.4	-7.6	-1.4	-12.6
Soap, natural	Millions of pounds	3,180	1,283	1,251	1,280	1,211	-6.3	-0.0	-0.8	-4.8	-2.5	-8.0	-3.7
Heating stoves, domestic	Thousands	5,227	1,886	1,749	1,684	1,561	-6.4	-8.0	-0.1	-6.0	1.7	-9.0	-2.2
Coal and kild skins	Thousands of skins	37,090	18,534	14,586	14,213	14,131	-6.4	-3.3	-8.7	-5.6	-0.2	-5.7	-7.4
Wire nails and staples	Thousands of short tons	888	320	322	310	310	-6.5	-9.3	-4.1	-10.5	-4.4	-7.0	-5.6
Anthracite	Millions of short tons	57	19	17	17	10	-7.0	-11.5	-4.9	-9.4	0.9	-8.5	-4.4
Insulated siding, all types	Thousands of squares	2,500	1,131	1,016	928	852	-7.1	1.8	-18.9	-13.6	-0.0	-4.1	-11.4
Rails and accessories	Millions of short tons	3,517	1,284	829	1,028	1,167	-7.4	-2.4	-7.6	-17.6	-4.4	-4.8	-11.2
Locomotives, diesel-electric	Number	2,254	374	260	736	780	-7.5	-1.3	-18.0	-28.1	23.0	-8.5	-5.9
Structural clay tile	Thous. of short tons	1,271	488	478	433	377	-7.8	-0.2	-8.7	-8.7	-8.2	-7.3	-6.8
Pump jacks	Thousands	42	10	10	9	11	-8.5	-8.5	-20.6	-6.0	3.2	-12.0	-1.4
Corn pickers, fold	do.	79	27	21	22	20	-8.8	-8.7	-4.8	-13.6	-0.6	-7.0	-11.3
Combines (harvester-threshers)	do.	91	30	23	25	25	-8.8	-2.8	-13.1	-12.6	-8.7	-7.5	-11.1
Hand and windmill pumps	do.	487	98	90	186	112	-9.0	-12.1	-10.8	-11.8	4.6	-12.1	-4.0
Asphalt siding	Thousands of squares	3,280	372	354	758	704	-9.1	-13.5	-8.7	-5.6	-3.1	-12.0	-3.6
Tractor moldboard plows	Thousands	300	94	78	78	74	-9.1	-12.8	-12.6	7.7	-12.6	-1.2	-21.6
Railroad passenger cars	Number	946	237	201	278	193	-10.1	-18.2	21.2	-34.5	-0.6	-4.3	-11.6
Radiators and convectors	Millions of square feet	60	21	14	12	12	-10.2	-11.8	-0.0	-6.6	-17.0	-17.7	-11.6
Windmill towers	Units	19,115	4,102	2,720	2,425	3,689	-12.3	-23.3	-10.9	8.6	-13.1	-18.0	-2.0
Cotton thread	Millions of pounds	285	80	19	19	13	-18.2	-23.8	-12.9	-10.0	-24.1	-19.2	-17.7
Dink blasting powder	Thousands of pounds	33,200	1,637	1,621	1,222	1,138	-20.1	-22.1	-21.1	-25.3	-9.5	-21.7	-17.6

## SUPPLEMENTARY LIST

Washer-dryer combinations	Thousands	104	161	04	44	39				-5.5	-42.3	-20.2
Stereophonic phonographs	do.	4,105	0,490	2,900	3,004	2,619					2.9	
Nylon tire cord	Millions of pounds	130	140	148	187	204				19.3	17.1	15.2
Travel trailers	Units	116,320	40,800	40,800	57,000	74,700				18.6	22.8	20.8
Neomycin base	Thousands of pounds	15	30	40	40	69				7.7	39.0	22.0
Antibiotics for animal feed supplements	do.	236	1,194	1,819	2,267	2,509				19.0	11.3	19.2
Vending machines	Thousands	478	046	621	083	509				8.4	-2.8	3.1
Can openers, including combinations	do.	300	1,200	1,600	2,275	3,000					85.7	
Titanium chloride	Thousands of short tons	299	158	403	622	621				8.2	1.1	2.3
Aluminum foil	Millions of pounds	94	240	271	307	321				15.9	6.0	7.8
Dietary machines	Thousands	90	09	103	112	117				3.4	-4.8	6.8
Autographic rulers	do.	106	115	111	117	117				-1.2	3.7	3.8
Frozen potatoes	Millions of pounds	71	681	679	702	805				22.7	36.8	16.1
Jot fuel	Millions of barrels	22	88	06	103	120				15.4	11.7	8.1
Semiconductor diodes and rectifiers	Millions	10	184	279	354	420				49.9	33.3	40.9
Helicopter transportation	Thous. of passenger-mi.	120	9,475	8,064	8,192	12,700				235.0	42.6	10.3
Interurbans, passenger, truck, and bus	Millions	07	41	38	51	40				-14.6	1.1	-1.1
Air-conditioning systems, residential, excluding heat pumps	Thousands	41	188	206	262	363				30.8	16.1	23.0
Air-conditioning systems, commercial, excluding heat pumps	do.	84	115	109	144	162				0.7	9.7	9.7
Steel forgings (for sale)	Thousands of short tons	1,827	1,308	1,183	1,380	1,802				-7.3	6.4	3.3
Trucks and tractors, gasoline	Units	20,843	22,425	19,000	26,783	29,207					3.1	6.0
Trucks, electric, hand (motorized)	do.	0,091	5,537	4,823	6,003	6,662				0.6	3.8	
Recorders, tape	Thousands	180	890	800	730	928					18.3	8.6
Transmitters	Millions	1	128	161	240	300					64.8	32.8
Transmitters, total	Thousands of pounds	408	1,164	1,408	1,836	2,177				6.5	2.1	4.8
Dihydroxyacetone	do.	129	262	288	586	642				17.8	-12.3	20.0
Tetracycline	do.	220	287	301	431	424					-10.6	12.9
Carpets and rugs, tufted type	Millions of sq yds.	21	122	170	226	232				20.5	18.0	20.0
Hydroxyethyl benzoate	Thousands	3,000	N.A.	3,000	7,000	8,700					74.2	12.5
Heat pumps	Units	1,000	47,000	51,000	61,800	77,500				63.8	22.8	36.0
Air conditioners for autos, installations	Thousands	41	414	438	777	1,032				25.4	18.6	18.3
Dehumidifiers	do.	28	375	376	365	220				34.2	2.2	14.8
Power steering	do.	36	2,345	2,682	2,857	3,520				37.8	-4.3	6.2
Power brakes	do.	114	1,888	1,241	1,791	2,011				12.0	-4.4	9.3
Automatic transmissions	do.	1,270	4,300	4,065	4,065	5,611						2.2

\*Not available.

† Average annual growth rates, calculated from data for the beginning and ending years, are derived by the use of the following formula:  $P_t = P_1(1+r)^t$ , where  $P_t$  is the end-of-period production;  $P_1$  is the beginning period production;  $r$  = rate of growth; and  $t$  is the number of years from the beginning to the ending period. For some products, where data were not available, 1947 was substituted for 1948 and 1962 for 1963. In the supplementary list, the production data shown in the "1948" column are for the 1st year such figures are available as indicated in the footnotes below.

\*New or revised 1963 output data for about 50 products became available subsequent to the calculation of growth rates and the arrangement of all the table. The new or revised output figures for 1963 and the revised growth rates for 1957-63 and 1960-63 are shown. For the 1948-63 period, the revisions in the growth rates were generally too small to warrant a rearrangement of the table. Tables 1, 2, and 3 do not reflect the revisions in the growth rates. † 1947. † 1948. † 1949. † 1950. † 1951. † 1952. † 1953. † 1954. † 1955. † 1956. † 1957. † 1958. † 1959. † 1960. † 1961.

Source: U.S. Department of Commerce, Office of Business Economics, based upon data obtained from private and Government sources.

of the 3-year rates. The data are shown in table 3.

From 1957 to 1960, only 16 percent of the items were classified as fast-growing; from 1960 to 1963 the proportion rose to 21 percent. The declining items constituted 37 percent of the total from 1957 to 1960; in the later period, this group represented 21 percent of all items.

#### Growth patterns of new products

Relatively few of the products that were comparatively new in the early postwar period have continued to show very high growth rates throughout their market life. Polyethylene, argon, textile glass fibers, antibiotics, and noncellulosic fibers, while expanding

much less rapidly than earlier, were still growing at an average rate of 10 percent or more per year in the 1957-63 period.

Room air conditioners, freezers, and frozen fruits are among some of the more important new products showing little change in output from the peak years of the mid-50's. Frozen meats and latex mattresses represent new postwar lines that grew very rapidly from 1948 to 1957 but have since shown negative rates.

The growth rates of many new consumer durable products that appeared on the market in the very early postwar period have not been uniform. Of 12

important items introduced since the end of the war, only 4—dishwashers, disposals, tape recorders, and electric blankets—have shown a generally consistent upward trend throughout their market life. For other appliances, production peaks were generally reached within 5 to 10 years after their introduction.

Output of black and white television sets, which reached high rates in 1950 and again in 1955, has since continued below these peaks. In a comparatively few years following the introduction of television receivers demand was so strong that by 1956 about 81 percent of the wired homes in the United States were equipped with receivers; at present the figure is 93 percent.

### REVISED STATISTICAL SERIES

#### Manufacturing and Trade Total and Retail Inventories<sup>1</sup>

(Millions of dollars)

	1963												1964						
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July*
<b>Unadjusted</b>																			
Manufacturing and trade, total.....	93,541	100,738	101,330	102,028	103,333	102,161	101,803	101,814	102,585	100,606	105,922	100,777	100,473	105,489	105,619	107,143	107,183	108,135	105,892
Retail trade, total.....	27,054	27,847	28,743	28,562	29,729	28,378	28,340	28,024	28,490	29,036	30,606	30,490	29,036	29,327	30,290	30,545	30,382	30,118	28,792
Durable goods stores.....	11,614	12,032	12,291	12,257	12,268	12,102	12,148	11,981	11,280	11,544	12,390	12,355	12,370	12,953	13,334	13,590	13,481	13,380	13,074
Automotive group.....	5,016	5,308	5,440	5,387	5,335	5,261	5,250	5,139	4,203	4,660	5,035	5,053	5,059	5,961	6,158	6,187	6,065	6,027	5,915
Furniture-appliance group.....	1,832	1,838	1,886	1,800	1,845	1,930	1,908	1,848	1,992	1,908	2,106	1,975	1,938	1,956	2,023	2,033	2,064	2,040	2,039
Lumber-bldg. material.....	2,373	2,328	2,416	2,443	2,431	2,404	2,372	2,370	2,363	2,344	2,361	2,316	2,298	2,317	2,416	2,447	2,483	2,482	2,396
Hardware group.....																			
Nondurable goods stores.....	15,440	16,815	16,400	16,606	16,512	16,216	16,202	16,563	17,130	17,863	18,207	18,245	18,026	18,374	18,816	19,048	18,871	18,798	18,708
Apparel group.....	3,248	3,388	3,466	3,544	3,582	3,548	3,542	3,644	3,785	3,925	3,958	3,890	3,954	3,914	3,911	3,953	3,970	3,900	3,871
Food group.....	2,350	2,408	2,484	2,474	2,584	2,580	2,564	2,491	2,538	2,607	2,707	2,654	2,583	2,642	2,698	2,693	2,673	2,664	2,610
General merchandise group.....	4,482	4,728	4,974	5,040	5,011	4,840	4,858	5,361	5,350	5,743	5,879	4,767	4,623	4,660	4,896	4,935	4,979	4,931	5,040
Department stores.....	2,315	2,329	2,502	2,574	2,561	2,450	2,482	2,598	2,792	2,851	3,143	2,512	2,400	2,446	2,556	2,613	2,606	2,555	2,618
<b>Seasonally adjusted</b>																			
Manufacturing and trade, total.....	100,529	100,740	100,994	101,369	101,693	102,028	102,523	102,672	103,140	103,731	104,529	104,827	105,417	105,413	106,721	106,371	106,647	106,421	105,954
Retail trade, total.....	28,008	28,138	28,231	28,279	28,338	28,457	28,548	28,615	28,782	28,921	29,254	29,393	29,408	29,686	29,661	29,967	29,928	29,740	29,661
Durable goods stores.....	11,721	11,823	11,853	11,798	11,900	11,870	11,981	11,978	12,082	12,118	12,341	12,506	12,588	12,708	12,813	13,045	13,024	12,879	12,887
Automotive group.....	4,574	4,971	4,988	4,900	4,949	4,908	4,938	4,965	5,075	5,149	5,307	5,435	5,494	5,496	5,650	5,701	5,624	5,724	5,586
Furniture-appliance group.....	1,906	1,900	1,901	1,894	1,891	1,818	1,931	1,970	1,963	1,980	2,006	2,013	2,011	2,023	2,037	2,041	2,066	2,064	2,068
Lumber-bldg. material.....	2,348	2,336	2,367	2,361	2,384	2,350	2,349	2,376	2,367	2,372	2,398	2,403	2,379	2,367	2,367	2,367	2,371	2,390	2,276
Hardware group.....																			
Nondurable goods stores.....	16,330	18,315	18,378	18,498	18,538	18,381	18,687	18,689	19,720	19,806	19,813	19,874	19,942	19,878	19,718	19,916	19,902	19,701	19,774
Apparel group.....	3,534	3,528	3,540	3,523	3,537	3,509	3,534	3,530	3,531	3,582	3,605	3,579	3,546	3,567	3,593	3,630	3,610	3,572	3,581
Food group.....	3,443	3,448	3,468	3,453	3,553	3,507	3,509	3,561	3,578	3,626	3,686	3,668	3,689	3,683	3,680	3,685	3,651	3,684	3,670
General merchandise group.....	4,958	4,996	5,094	5,024	5,048	5,015	5,006	5,023	5,074	5,147	5,219	5,185	5,164	4,980	4,983	4,999	4,990	5,002	5,222
Department stores.....	2,483	2,602	2,497	2,528	2,553	2,574	2,607	2,609	2,630	2,695	2,747	2,780	2,678	2,623	2,664	2,657	2,600	2,620	2,761

#### Manufacturing and Trade Total and Retail Inventory—Sales Ratios<sup>1</sup> (Months)

	1.52	1.50	1.51	1.50	1.50	1.50	1.48	1.40	1.52	1.51	1.53	1.40	1.41	1.48	1.50	1.48	1.47	1.48	1.45
Manufacturing and trade, total.....																			
Retail trade, total.....	1.38	1.38	1.39	1.39	1.40	1.39	1.38	1.39	1.41	1.40	1.42	1.40	1.41	1.37	1.40	1.40	1.39	1.38	1.37
Durable goods stores.....	1.77	1.78	1.80	1.77	1.81	1.79	1.77	1.83	1.82	1.79	1.85	1.80	1.86	1.79	1.85	1.86	1.80	1.87	1.83
Nondurable goods stores.....	1.29	1.19	1.19	1.21	1.21	1.20	1.20	1.19	1.21	1.20	1.22	1.19	1.20	1.18	1.17	1.18	1.18	1.16	1.16

\* Preliminary.

<sup>1</sup> Retail inventory estimates for the period January 1963 through June 1964 have been revised to incorporate new information from the *Retail Trade 1963 Annual Report* by the Bureau of the Census. Data in the Annual Report are derived from a substantially larger inventories held by retailers than are the estimates obtained from monthly surveys.